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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/364,821	07/30/1999	CHI DARREN	4318	9940

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EXAMINER	
HA, LEYNNA A	

ART UNIT	PAPER NUMBER
2135	

DATE MAILED: 02/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/364,821	DARREN, CHI	
	Examiner	Art Unit	
	LEYNNA T. HA	2135	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-16 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-16 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-16 have been re-examined.

2. Claims 1-16 have been rejected 35 U.S.C. 102(e).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Chen, Et Al. (US 5,951,698).

As per claim 1:

Chen, Et Al. teaches a computer-implemented method for detecting a macro virus in code adapted for use on a digital computer, said method comprising the steps of:

analyzing the code to determine whether said code contains instructions causing a macro to be moved to a global environment; **(col.6, lines 31-46 and col.11, lines 30-31)**

when the code contains instructions causing a macro to be moved to a global environment, flagging said macro; **(col.9, lines 44-45 and col.10, line 25)**

analyzing the code to determine whether said code contains instructions causing the flagged macro to be copied to a local document; and **(col.8, lines 32-39)**

when the code contains instructions causing the flagged macro to be copied **(col.8, lines 38-39)** to a local document, declaring that said flagged macro contains a macro virus. **(col.10, lines 52-56 and col.15, lines 46-50)**

As per claim 2:

Chen discloses the macro is contained within a module. **(col.6, lines 31-36)**

As per claim 3:

Chen discloses the code is associated with a Microsoft Excel spreadsheet application. **(col.5, line 22)**

As per claim 4:

Chen discloses the code is written in the Visual Basic language **(col.7, lines 11-13 and col.8, lines 1-4). [It is inherent that the Visual Basic language is a trademarked**

name owned by the Microsoft Corporation and is designed for building Windows-based applications such as Microsoft Office including word processing and Excel spreadsheet. Chen's invention includes Microsoft EXCEL as a spreadsheet application, thus it is inherent that the code may be written in Visual Basic language. By Chen disclosing the WordBasic language is not necessarily only used for this invention but just an example (see col.5, lines 34-37) of one of the variety of languages that can be used in writing for WORD data files (see col.7, lines 11-13 and col.8, lines 1-4).]

As per claim 5:

Chen discloses the step of analyzing the code to determine whether said code contains instructions causing a macro to be moved **(col.10, lines 22-23 and col.11, lines 30-31)** to a global environment **(col.6, lines 2-13 and col.8, lines 38-39)** comprises determining whether a SaveAs command is present in the code. **(col.14, lines 8-10)**

As per claim 6:

Chen discloses the step of analyzing the code to determine whether said code contains instructions causing the flagged macro to be copied to a local document **(col.8, lines 32-39 and col.10, lines 52-56)** comprises determining whether a Copy command is present in the code. **(col.14, lines 16-23)**

As per claim 7:

Chen discloses each analyzing step concatenates strings when said analyzing step encounters a concatenation operator within the code. **(col.16, lines 14-40)**

As per claim 8:

Chen discloses each analyzing step makes substitutions for variable names when the code contains variable names that are proxied. **(col.14, lines 55-64)**

As per claim 9:

Chen discloses each analyzing step traces the values of parameter variables when the code contains instructions that are invoked by other code. **(col.5, lines 49-52 and col.16, lines 41-49)**

As per claim 10:

Chen discloses each analyzing step substitutes object names when the code is written in an object oriented programming language **(col.5, lines 34-38)** and when the code contains substituted object names. **(col.6, lines 48-60, col. 13, lines 64-67, and col.14, lines 38-64)**

As per claim 11:

Chen discloses the step of deleting the macro virus. **(col.11, lines 32-33)**

As per claim 12:

Chen discloses the publicly identified and publicly unidentified macro viruses are detected. **(col.9, lines 34-37)**

As per claim 13:

Chen teaches a method for detecting publicly identified and publicly unidentified macro viruses in code adapted for use on a digital computer, said method comprising the steps of:

analyzing the code to determine whether said code contains instructions causing a macro to be moved to a global environment; **(col.6, lines 31-46 and col.11, lines 30-31)**

when the code does not contain instructions causing a macro to be moved to a global environment, declaring that no macro virus is present; **(col.6, lines 54-63 and col.8, lines 17-18)**

when the code contains instructions causing a macro to be moved to a global environment, flagging said macro; **(col.8, lines 38-39 and col.9, lines 43-63)**

analyzing the code to determine whether said code contains instructions causing the flagged macro to be copied to a local document; and **(col.8, lines 52-57 and col.13, lines 34-62)**

when the code does not contain instructions causing the flagged macro to be copied to a local document, declaring that no macro virus is present; and **(col.12, lines 35-39)**

when the code contains instructions causing the flagged macro to be copied to a local document **(col.8, lines 32-39)**, declaring that said flagged macro contains a macro virus. **(col.10, lines 52-56 and col.15, lines 46-50)**

As per claim 14:

Chen teaches an apparatus for detecting publicly identified and publicly unidentified macro viruses, said apparatus comprising:

a digital computer having at least one storage device; **(col.6, lines 7-8)**

associated with said digital computer, code containing computer instructions **(col.5, lines 3-6)**

application program associated with said computer; **(col.5, lines 10-14)**

global environment associated with said application program; **(col.5, lines 22-46 and col.8, lines 7-17)**

at lease one local document generated by said application program and located within said storage device; and **(col.6, lines 39-45)**

a detection module coupled to said code, said detection module analyzing said code and making the determination that a macro virus is present **(col.6, lines 38-43)** when said code contains instructions causing a macro to be moved to a global environment **(col.6, lines 31-46 and col.11, lines 30-31)** and said code also contains instructions causing the same macro to be copied **(col.8, lines 32-39)** to a local document. **(col.10, lines 52-56 and col.15, lines 46-50)**

As per claim 15:

Chen teaches a repair module coupled to the detection module and to the code, said repair module **(col.9, lines 30-47)** adapted to delete the code when the detection module determines that the code contains a macro virus. **(col.9, line 51 thru col.10, line 3)**

As per claim 16:

Chen teaches a computer readable medium containing a computer program for detecting a macro virus in code adapted for use on a digital computer, said program containing instructions for performing the steps of:

analyzing the code to determine whether said code contains instructions causing a macro to be moved to a global environment; **(col.6, lines 31-46 and col.11, lines 30-31)**

when the code contains instructions causing a macro to be moved to a global environment, flagging said macro; **(col.9, lines 44-45 and col.10, line 25)**

analyzing the code to determine whether said code contains instructions causing the flagged macro to be copied to a local document; and **(col.8, lines 32-39)**

when the code contains instructions causing the flagged macro to be copied to a local document **(col.13, lines 34-62)**, declaring that said flagged macro contains a macro virus. **(col.10, lines 52-56 and col.15, lines 46-50)**

Response to Arguments

The Examiner have re-evaluated the rejections and made some changes to the citations for the rejections using the same prior art (Chen, Et Al.).

Applicant considers a global environment to be an area of storage medium that stores the macros and is established by users (pg.5 and 8).

Chen discloses data buffers as a global environment, which provides settings and macros (see col.6, lines 4-9 and col.8, lines 10-17) and macro reproduction instructions for the data file in the form of local document (see col.5, lines 27-37). Chen discusses determining if there is a macro in the targeted file where these files are to be stored

(moved) to the global environment **(col.6, lines 31-67)** and copied to the local document **(col.8, lines 32-39)** if certain macro viruses cause infected document files to be saved in template formats and thereby the infected macros are copied into a data file **(col.10, lines 52-56 and col.15, lines 46-50)**. In order to store data, the data has to moved or transferred. To clarify some terminologies stated in Applicant's claim language, the Examiner refers to "Microsoft Computer Dictionary (5th Edition). According to the Microsoft Dictionary, to "move" is to transfer information from one location to another which is basically storing the information.

It is inherent that the Visual Basic language is a trademarked name owned by the Microsoft Corporation and is designed for building Windows-based applications such as Microsoft Office including word processing and Excel spreadsheet. Chen's invention includes Microsoft EXCEL as a spreadsheet application, thus it is inherent that the code may be written in Visual Basic language. By Chen disclosing the WordBasic language is not necessarily only used for this invention but just an example **(see col.5, lines 34-37)** of one of the variety of languages that can be used in writing for WORD data files. The object oriented programming languages can be one of the variety of languages or conventional programming techniques **(col.7, lines 11-13)** and the substitute object names are discussed in Chen **(col.6, lines 48-60 and col.14, lines 38-64).**

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LEYNNA T. HA whose telephone number is (571) 272-3851. The examiner can normally be reached on Monday - Thursday (7:00 - 5:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on (571) 272-3859. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LHa

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